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10/822,095	04/12/2004	Hiroyuki Shinoda	Q81029	2192
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EXAMINER				
HALIYUR, VENKATESH N				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/822,095

Applicant(s)

SHINODA ET AL.

Examiner

VENKATESH HALIYUR

Art Unit

2619

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 May 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 (claims 19-44 are canceled) is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/S508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. The amendment filed on 05/13/2008 has been considered but is ineffective to overcome Burgess reference. However the finality of the previous office action has been withdrawn in view of the new ground(s) of rejection communicated in this office action. Rejection follows.
2. Claims 1-18 are pending in the application. Claims 19-44 are canceled.

Claim Rejections - 35 USC § 112

3. Claims 5,8,14,17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 8, 17 recite the limitations of, "plurality of communication elements are classified into the first order to the ***Nth order ranks in ascending order of the communication management capabilities*** of the elements". From the claims it is not clear how the Nth order ranks of the communication management capabilities of the elements is functionally performed in these claims or in the predecessor claims and

hence claims 8,17 fails to particularly point out and distinctly claim the subject matter which the applicant regards as invention.

Claims 5, 14 recite the limitations of "**plurality of distributed** communication elements, wherein each of the communication elements **has such** a coverage that allows **local communication** with other neighboring communication elements, the local communication allowing sequential transmissions of a signal between the communication elements to convey the signal to a target communication element. There is insufficient antecedent basis for the limitation "plurality of distributed communication elements" for claims 5, 14 in the predecessor claims. The limitation "wherein each of the communication elements **has such** a coverage that allows local communication" is vague as the limit of coverage is indefinite by use of the phrase "has such a coverage".

Therefore appropriate corrections are required to these claims by positively reciting the claim limitations as in the specification.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burgess [US Pat: 5,695,859] in view of Kim et al [US Pub 2001/0033267].

Regarding claims 1,3-4,10,12-13, Burgess in the invention of "Pressure Activated Switching Device" disclosed a communication apparatus elements comprising: a first conductive layer and a second conductive layer and a plurality of communication elements that are connected to the first conductive layer and the second conductive layer (**upper and lower conductive layers, col 2, lines 26-35, col 2, lines 51-67**), wherein a first communication element of the plurality of communication elements, initiating transmission to a second communication element of the plurality of communication elements, is operative to control a voltage between the first conductive layer and the second conductive layer (**col 14, lines 11-32, Fig 10**) letting the second communication element to acknowledge a change in the voltage propagated around the first communication element as a signal (**col 4, lines 60-67, col 5, lines 1-27, Figs 1**), wherein the second communication element is operative to monitor the signal from the first communication element and acknowledge the change in the voltage between the first conductive layer and the second conductive layer as the signal (**col 8, lines 51-67, col 9, lines 1-26, Fig 2**), but fails to disclose wherein the second communication element is assigned an ID identifying the elements and the signal includes an ID identifying a recipient communication element of the plurality of communication elements which is subsequently to receive the signal, and wherein the recipient communication element determines whether a signal is

destined to the element by referring to the ID included in the signal. However, Kim et al. in the invention of "Notebook Computer with Detachable Infrared Multi-Mode Input Device" disclosed a device that transmits signals which includes unique identification (**3 bit identification, Fig 17**) in the data identifying source and the recipient (**para 0098**). Therefore it would have been possible for one of ordinary skill in the art at the time the invention was made to use the method of transmitting source and the final destination identification in the signal as taught by Kim et al. in the system of Burgess to include assigning second communication element an ID, identifying the elements and a recipient ID, identifying a recipient communication element of the plurality of communication elements in the signal. One is motivated as such in order to include the source and final destination identification (ID) in the signal transmitted by the sensor device for the recipient communication element to determine whether a signal is destined to the element by referring to the ID included in the signal.

Regarding claims 2, 11, Burgess disclosed where in the first communication element is operative to generate, as the signal, the change in the voltage between the first conductive layer and the second conductive layer propagated concentrically around the first communication elements (**col 9, lines 54-67, col 10, lines 1-22**).

Regarding claims 5, 14, Burgess disclosed a plurality of distributed communication elements, wherein each of the communication elements has such a coverage that allows local communication with other neighboring

communication elements (**col 2, lines 51-63**), the local communication allowing sequential transmissions of a signal between the communication elements to convey the signal to a target communication elements (**col 15, lines 13-24**).

Regarding claim 6, 15, Burgess disclosed wherein the first conductive layer and the second conductive layer are flat layers (**col 10, lines 23-36**).

Regarding claim 7, 16, Burgess disclosed wherein the first conductive layer and the second conductive layer are uniform conductive layers (**col 12, lines 37-49**).

Regarding claim 8, 17, Burgess disclosed wherein the plurality of communication elements are classified into the first order to the Nth order ranks in ascending order of the communication management capabilities of the communication elements (**col 11, lines 66-67, col 12, lines 1-49**).

Regarding claim 9, 18, Burgess disclosed comprising a sensor element including a circuit for measuring stress or temperature (**force or stress, col 10, lines 57-65, col 12, lines 55-67, col 13, lines 1-14**).

Response to Arguments

6. Applicant's arguments, remarks filed on 05/13/2008, with respect to the rejection(s) of claim(s) 1-18 under 35 U.S.C 103(a) have been fully considered and is persuasive to over come Lupstun reference. Therefore, the rejection communicated via

previous office action has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Burgess and Kim et al references.

With respect to applicant's argument for independent that Burgess fails to disclose the limitation of initiating signal transmission from first to second communication elements as claimed in claims 1 and 10, however, the examiner respectfully disagrees and points applicant's to col 14, lines 11-32 where Burgess disclosed that primary element initiating a signal transmission to secondary element for the purposes of force measurement of the sensor.

With respect to applicant's argument that Burgess only teaches spacer elements and conductive layers, but not communication elements with an order of management capabilities, however Burgess disclosed managing multiple switching of layered conductive elements based on magnitude of force generated by the sensor in col 12, lines 6-49 and therefore a broad interpretation of the Nth order of the ranks of the elements has been made while rejecting claims.

With respect to applicant's argument that references fails to In response to applicant's argument that the references fail to show certain features of applicant's invention in claims 1-18, it is noted that the features upon which applicant relies on such as the type of communication apparatus, the relay communication element(s) and management module for managing the communication elements in the communication apparatus are not positively recited in the rejected claim(s). Although the claims are interpreted in light of the specification (please refer to figures 2, 4, 15-39 and corresponding sections in the specification), limitations from the specification are not

read into the claims and therefore a broad interpretation of the claim limitations has been made while rejecting these claims.

Conclusion

7. THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

8. Any inquiry concerning this communication or earlier communications should be directed to the attention to Venkatesh Haliyur whose phone number is 571-272-8616. The examiner can normally be reached on Monday-Friday from 9:00AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached @ (571)-272-7884. Any inquiry of a general

Art Unit: 2619

nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (571)-272-2600 or fax to 571-273-8300.

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

/Venkatesh Haliyur/

Examiner, Art Unit 2619

/Edan Orgad/

Supervisory Patent Examiner, Art Unit 2619